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Total Number of Pages in This Submission

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Filing Date	08/15/2003
First Named Inventor	GEORGE Y. HUANG
Art Unit	2833
Examiner Name	TSUKERMAN, LARISA Z.
Attorney Docket Number	HUANG/CONT RAISED PORT

ENCLOSURES *(Check all that apply)*

- [x] Fee Transmittal Form
  - [x] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
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- [ ] Information Disclosure Statement
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  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
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- [x] Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	LAW OFFICE OF DUNCAN PALMATIER		
Signature			
Printed name	DUNCAN PALMATIER		
Date	December 14, 2005	Reg. No.	40,759

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Signature			
Typed or printed name	Duncan Palmatier	Date	December 14, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

First Named Inventor	:	George Y. Huang
Applicant	:	George Y. Huang
Application No.	:	10/642,413
Filed	:	08/15/2003
For	:	ELECTRICAL CONNECTOR AND ADAPTER
	:	STRUCTURE WITH RAISED PORTION
Group Art Unit	:	2833
Examiner	:	TSUKERMAN, LARISA Z.
Attorney Docket	:	Huang/Cont Raised Port
Customer No.	:	26860

APPEAL BRIEF, 37 CFR 1.192

December 14, 2005

Mail Stop Appeal Brief - Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

VIA FAX (703) 872-9306

Dear Commissioner for Patents:

Further to the Notice of Appeal, filed October 14, 2005, Appellant-Applicant George Y. Huang presents this Appeal Brief. Appellant respectfully requests that this appeal be considered by the Board of Patent Appeals and Interferences.

This Appeal Brief is submitted in triplicate, along with the following items:

- Transmittal Form (PTO/SB/21);
- Credit Card Payment Form (PTO 2038); and
- Appeal Brief.

12/15/2005 TL0111 00000024 10642413
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Application/Control Number: 10/642,413 Atty Docket No.: Huang/Cont Raised Port
Ex'r: Tsukerman, Larisa Z.; Art Unit: 2833 APPEAL BRIEF

I. REAL PARTY IN INTEREST (37 CFR 41.37(c)(1)(i))

The subject patent application is owned by the inventor and applicant, George Y. Huang.

II. RELATED APPEALS AND INTERFERENCES (37 CFR 41.37(c)(1)(ii))

There are no related appeals or interferences pending.

The parent (application No. 09/657,869) of this continuation application was the subject of an appeal, No. 2002-1175, filed on October 3, 2001 ("first appeal"). The Board of Patent Appeals & Interferences (BPAI) rendered its Decision on Appeal on June 17, 2003 ("6/17/03 Decision"), affirming the rejections, as discussed in greater detail below. However, at the oral hearing in that first appeal, the Appellant and the BPAI discussed an amendment to overcome the Examiner's rejections. At the oral hearing, Appellant understood the BPAI to take the position that the proposed amendment would overcome the ground for rejection, but it could not recommend the amendment to the Examiner. Following the first appeal, Applicant filed the instant continuation application and a preliminary amendment incorporating the proposed amendment. However, the Examiner twice and finally rejected the amended claims and, on December 8, 2004, the Applicant filed a second appeal ("second appeal"). Applicant thereafter filed its appeal brief on February 8, 2005.

On July 14, 2005, the Examiner issued a non-final office action ("7/14/05 OA"), re-opening prosecution. On October 14, 2005, Applicant filed a Notice of Appeal and this third appeal followed ("third appeal").

III. STATUS OF CLAIMS (37 CFR 41.37(c)(1)(iii))

Claims 1, 3 through 12, and 14 through 16 are pending, were rejected by the Examiner,

and are the subject of this appeal. Claims 2 and 13 were canceled in the preliminary amendment filed with the instant continuation application.

IV. STATUS OF AMENDMENTS (37 CFR 41.37(c)(1)(iv))

All the pending claims, 1, 3 through 12, and 14 through 16, of the instant continuation application were amended in a preliminary amendment filed with the continuation application. Claims 2 and 13 were canceled in that preliminary amendment. At the time of filing of this brief, no amendments subsequent to the final rejection have been made. The Appendix hereto reflects the current state of the claims.

V. SUMMARY OF CLAIMED SUBJECT MATTER (37 CFR 41.37(c)(1)(v))

A concise explanation of the subject matters of independent claims 1 and 12 is provided. Because this is a concise explanation, it does not attempt to explain all embodiments and alternative structures described in the specification. References are to page and line numbers of the specification as originally filed in the continuation application ("Specification"). With respect to means-plus-function terms (35 USC §112,¶6), neither the independent nor the dependent claims at issue in this appeal contain such claim terms.

Generally, the invention relates to electrical connector and adapter structures used in the electronics industry. See U.S. Publication No. 2004/53,533 ("Huang"), at ¶ 0004. The invention discloses a connector or adapter housing structure that provides a raised portion that will be exposed after the outer plastic covering is molded onto the connector or adapter. Id. at ¶¶ 0016-18, and Fig. 2. This raised portion of the housing provides a place to incorporate designs, such as business logos or gripping surfaces, which can be formed as part of the raised portion. Id. at ¶¶

0019 and 0021, and Figures 3 and 4.

The present invention eliminates the need to apply a logo through a second injection molding process or by affixing it in a later manufacturing step. Id. at ¶¶ 0007 (describing need for two-step molding process of prior art), and 0010 (invention eliminates second injection molding step). The raised portion of the present invention also provides a more discernable and durable surface for logos than the molded plastic covering. Id. Moreover, with transparent plastic coverings of recent designs, the raised portion of the present invention provides the best surface for logos or other information. Id. In this way, a cable connector or adapter can be manufactured and assembled with fewer parts and steps, and the finished product will provide a superior surface for logos and information. Id.

A. INDEPENDENT CLAIM 1

Independent claim 1 provides as follows:

1. An electrical connector structure comprising:

a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing,

a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and

wherein the design surface is formed as part of the background surface and is not

level with the background surface.

1. **"housing with an outer surface"**

One embodiment of the "housing with an outer surface" is shown in Figure 2 as reference character 14. One description of this structure is provided in the Specification at page 5, lines 4 through 11 (hereinafter, "5:4-11").

2. **"electrical connector plug"**

One embodiment of the "electrical connector plug" 12 is shown in Figure 2. One description of this structure is provided in the Specification at 5:2-4.

3. **"raised portion"**

One embodiment of the "raised portion" 17 is shown in Figure 2. One description of this structure is provided in the Specification at 5:4-11.

4. **"covering"**

One embodiment of the "covering" 11 is shown in Figure 2. One description of this structure is provided in the Specification at 6:1-8.

5. **"exposed part"**

One description of the "exposed part" is provided in the Specification at 6:3-8.

6. **"background surface"**

One description of the "background surface" is provided in the Specification at 6:10-16.

7. **"design surface"**

One description of the "design surface" is provided in the Specification at 6:13-16.

A. **INDEPENDENT CLAIM 12**

Independent claim 12 provides as follows:

12. An electrical adapter structure comprising:

a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing,

a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and

wherein the design surface is formed as part of the background surface and is not level with the background surface.

1. **"housing with an outer surface"**

One embodiment of the "housing with an outer surface" is shown in Figure 2 as reference character **14**. One description of this structure is provided in the Specification at page 5, lines 4 through 11 (hereinafter, "5:4-11").

2. **"electrical connector plug"**

One embodiment of the "electrical connector plug" **12** is shown in Figure 2. One description of this structure is provided in the Specification at 5:2-4.

3. **"raised portion"**

One embodiment of the "raised portion" **17** is shown in Figure 2. One description of this structure is provided in the Specification at 5:4-11.

4. **"covering"**

One embodiment of the "covering" 11 is shown in Figure 2. One description of this structure is provided in the Specification at 6:1-8.

5. **"exposed part"**

One description of the "exposed part" is provided in the Specification at 6:3-8.

6. **"background surface"**

One description of the "background surface" is provided in the Specification at 6:10-16.

7. **"design surface"**

One description of the "design surface" is provided in the Specification at 6:13-16.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 CFR 41.37(c)(1)(vi))

1. Whether claims 1 and 12 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,735,699 to Tan *et al.* ("Tan").
2. Whether claims 1 and 12 are unpatentable under 35 U.S.C. § 103(a) as being anticipated by U.S. Patent No. 4,704,091 to Owens *et al.* ("Owens").
3. Whether claims 3 and 14 are unpatentable under 35 U.S.C. § 103(a) over Owens in view of U.S. Patent No. 4,256,159 to Williams ("Williams").
4. Whether claims 4 is unpatentable under 35 U.S.C. § 103(a) over Owens in view of U.S. Patent No. 4,256,159 to Williams, and further in view of U.S. Patent No. 4,202,351 to Biche ("Biche").
5. Whether claims 5 is unpatentable under 35 U.S.C. § 103(a) over Owens in view of U.S. Patent No. 4,256,159 to Williams, and further in view of U.S. Patent No.

4,275,768 to Riggs *et al.* ("Riggs").

6. Whether claims 6 is unpatentable under 35 U.S.C. § 103(a) over Owens in view of U.S. Patent No. 4,256,159 to Williams, and further in view of U.S. Patent No. 4,960,391 to Beinhaur *et al.* ("Beinhaur").

7. Whether claims 7, 8 and 15 are unpatentable under 35 U.S.C. § 103(a) over Owens in view of Biche.

8. Whether claim 9 is unpatentable under 35 U.S.C. § 103(a) over Owens in view of Biche, and further in view of Riggs.

9. Whether claim 10 is unpatentable under 35 U.S.C. § 103(a) over Owens in view of Biche, and further in view of Beinhaur.

10. Whether claims 11 and 16 are unpatentable under 35 U.S.C. § 103(a) over Owens in view of U.S. Patent No. 4,164,725 to Wiebe ("Wiebe").

VII. ARGUMENT (37 CFR 41.37(c)(1)(vii))

A. APPEAL IN THE PARENT APPLICATION

At the oral hearing in the first appeal, the Appellant and the BPAI discussed an amendment to claim 1 to overcome the Examiner's rejections. Before amendment, claim 1 read as follows (emphasis added):

1. An electrical connector structure comprising:

> a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing, and
>
> a covering formed over the outer surface of the housing,

> wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, and
>
> **wherein the exposed part of the raised portion forms a surface further comprising a design formed as part of the surface.**

The BPAI concluded that the raised portion 26 of Owens inherently constituted a "design" within the meaning of the bolded language in Appellant's claim 1. See 6/17/03 Decision. At the oral hearing, Appellant and the BPAI discussed an amendment that would overcome the Owens reference. The amendment was as follows:

> 1. An electrical connector structure comprising:
>
> a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing, and
>
> a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and
>
> wherein the ~~exposed part of the raised portion forms a surface further comprising a design~~ design surface is formed as part of the background surface and is not level with the background surface.

At the oral hearing, Appellant understood the BPAI to take the position that the above amendment would overcome the BPAI's ground for rejection. That is, the BPAI stated that the raised portion 26 of Owens formed a "design surface", thereby anticipating the claim. The above amendment, discussed at the oral hearing, overcame the Owens reference by distinguishing

between a "design surface" of the type the BPAI argued was inherent in the raised portion 26 of Owens, and "design surface" which is distinguished from a "background surface". The amendment overcame Owens by clarifying that the claimed "design surface" is not the same as, nor at the same level as, the claimed "background surface".

Following the 6/17/03 Decision, Applicant filed a continuation application with a preliminary amendment incorporating the amendment discussed with the BPAI. The Examiner did not maintain the previous grounds for rejection, which were involved in the first appeal, but rejected the amended claims based on new arguments.

B. ANTICIPATION REJECTIONS (35 U.S.C. § 102(b))

The Examiner rejected the two independent claims, 1 and 12, under 35 U.S.C. §102(b), as being anticipated by Tan. See 7/14/05 OA, at pp. 2-3.[1] Of particular importance, the Examiner erroneously interpreted the drawings of Tan as showing the Applicant's claimed "raised portion" with a "background surface" and "design surface", when, in fact, Tan shows no such structure at all. With respect to the elements of Tan relied upon by the Examiner, Tan shows and describes an audio jack unit (17) with a hollow, cylindrical "mating port" (29) for receiving an audio jack connector. Tan shows no surfaces. The descriptions in Tan directly contradict the Examiner's arguments. The Examiner made these arguments in the January 6, 2004 Non-Final Office Action ("1/6/04 OA"), at p. 2, and Applicant's June 7, 2004 Response ("6/7/04 Response"), as well as Applicant's February 8, 2005 appeal brief ("second appeal brief") in the second appeal, at pp. 6-7,

[1] These arguments are identical to those in the September 9, 2004 Final Office Action ("9/9/04 OA"), at p. 2, from which the second appeal was taken.

noted the discrepancies between the Examiner's arguments and the actual teaching of Tan. However, the Examiner continues to insist that the hollow, cylindrical, audio jack connector (29) of Tan is something different from what it appears and how it is described. The Examiner argues that Tan's audio jack (29) somehow provides a "raised portion" having an "exposed part" forming a "background surface and a design surface" (from Applicant's claim 1), because every object has some surface and the rim of Tan's audio jack could, metaphysically, be a surface on which a design might be located. See 7/14/05 OA, at p. 9 ("any piece or part of any device **inherently** has a surface, and the Examiner considers an [*sic*] circumferential outer surface of a raised portion 29 as a back ground surface BS and a front edge as a designed [*sic*] surface DS"; emphasis in original); and 9/9/04 OA, at p. 6 ("**first of all**, Tan et al. clearly discloses that the housing 16 has a raised portion 29 that is above the outer of the housing 16"; emphasis added). The Examiner's argument is like the mediaeval debate about how many angels can fit on the head of a pin. This argument strains any reasonable interpretation of Tan and simply defies the clear teaching of Tan. Tan's audio jack (29) is not a "raised portion", it does not have an "exposed part" forming a "background surface", and the rim of the jack does not provide a "design surface". Thus, Tan does not show the elements of Applicant's claims. The Examiner's argument is without support.

1. Tan's Audio Jack (17) Mating Ports (29) Are Not Raised Portions With Background and Design Surfaces

The Examiner argued that Tan discloses a device (10) with a housing (16), "wherein the housing 16 has a raised portion 29 above the outer surface of the housing 16", and that an "exposed part of the raised portion further comprises a background surface BS and a design surface DS". See 7/14/05 OA, at p. 2. The Examiner erroneously interpreted the drawings of

Tan as showing the Applicant's claimed "raised portion" with a "background surface" and "design surface", when, in fact, Tan shows no such structure at all. In support of this argument, the Examiner identified Fig. 3 of Tan and copied into the 7/14/05 OA with the Examiner's superimposed references to "BS" and "DS". Id.

Tan discloses an "existing universal frame and its associated audio jack assembly" (12) (Tan, Col. 1:37-38), "for mounting to a mother board (100)" (id., Abstract) within a "computer case" (id., Col. 1:10-11), with an improved grounding clip (26). Id., Col. 1:6 and 1:35. The Examiner misunderstands the structure of the audio jack (16) mating ports (29) (id., Col. 3:46) and argues that they constitute the "raised portion" element of the claims at issue. See 7/14/05 OA, at 2. The Examiner mistakenly speculates that each of the audio jack mating ports (29) of Tan "further comprises a **background surface BS** and a **design surface DS**, and the design surface is formed as part of the background surface and is not level with the background surface". Id. (Emphasis added.) Tan does not disclose or show such a structure. On the contrary, Tan discloses a "three-in-one integral audio jack assembly **16**" (see Tan, Col. 2:28) "composed of three audio jack units **17**" (id., Col. 2:38-39) having electrical contacts (22 and **24**, id., Col. 2:40-41) for mating to a computer motherboard (100, id., Col. 2:41-51), and each audio jack unit (17) has a "mating port" (29, id., Col. 3:46):

> the mating port **29** of the audio jack unit **17** commonly project out of the opening **48** of the bracket **12** wherein the mating portion **29** of the audio jack unit **17** is positioned on the upper portion thereof...

See Tan, Col. 3:45-49. The expressly referenced companion application of Tan (see Tan, Col. 1:13-14), U.S. Patent No. 5,643,008 ("Tan II"), includes a slightly more detailed description of

the audio jack assembly and mating ports:

> the mating portion **42** of each unit **34** of the audio jack assembly **30** is adapted to project out of the corresponding opening **25** of the bracket **12** for coupling to the complementary cable connector (not shown).

See Tan II, Col. 3:51-55.

From these descriptions in Tan, it will be appreciated that, contrary to the Examiner's strained interpretation, Tan does not show any surface, neither background nor design, neither "exposed", level nor lower than any other surface; rather, Tan shows a hollow, cylindrical audio jack mating port (29) to receive an audio cable connector. Therefore, as to the background and design surface elements, Tan does not anticipate the claimed structure. The Examiner's interpretation of Tan's Fig. 3, as shown by the Examiner's added markings "BS" and "DS", is contrary to Tan's description.

The Examiner argues that the "circumferential outer surface" of Tan's audio jack (29) forms the Applicant's claimed "background surface". See 7/14/05 OA, at p. 9. However, the Examiner's argument takes the "background surface" element of Applicant's claims 1 and 12 out of context. The claimed "background surface" is not just any surface existing in an existential universe, as the Examiner supposes ("any device **inherently** has a surface"; id., emphasis in original), but is the structure formed by an "exposed part of the raised portion [that] is not covered by the covering" "formed over the outer surface of the connector housing ... above the outer surface of the housing" (from claim 1). The "circumferential outer surface" cited by the Examiner is not "exposed", because the Examiner also argues that Tan's "bracket 12" (Tan, Col. 47) is the equivalent of Applicant's "covering" element, and Tan's bracket (12) covers the

"circumferential outer surface" of the audio jack (29) and "three-in-one integral audio jack assembly **16**" (see Tan, Col. 2:28).

The Examiner also argues that Tan's audio jack (29) somehow provides a "raised portion" having an "exposed part" forming a "background surface and a design surface" (from Applicant's claim 1), because the rim of Tan's audio jack could be a surface on which a design might be located. See 7/14/05 OA, at p. 9 ("the Examiner considers ... a front edge as a designed [*sic*] surface DS"). The Examiner's argument strains any reasonable interpretation of Tan and is contrary to Tan's description of the "mating portion **29** of the audio jack unit **17**". See Tan, Col. 3:45-49. Tan's audio jack (29) is not a "raised portion", it does not have an "exposed part" forming a "background surface", and the rim of the jack does not provide a "design surface". Thus, Tan does not show the elements of Applicant's claims.

Moreover, as described in Tan and Tan II, each audio jack unit (17) has four signal contacts (22) as well as a grounding contact (24) (see Tan, Col. 2:38-41, and Tan II, at Col. 3:26-32), and it will be appreciated that the mating ports (29) are formed in multiple rings of electrical contacts and insulators. The claim language at issue here includes the limitation that the raised portion "is formed as part of the background surface", which is not taught by the many-layered audio jack ports of Tan.

2. **Tan Lacks The Other Claimed Elements And Limitations**

The Examiner also misinterpreted the other elements of Tan. The structure shown in Tan is an audio jack assembly (10), with a grounding clip (26), for mounting to a computer motherboard (100). This structure does not disclose or teach the elements of Applicant's claims,

such as a "housing with an outer surface", an "end adapted to hold an electrical connector plug", a "raised portion", *etc.*

The Examiner argues that the "three-in-one integral audio jack assembly **16**" of Tan (see Tan, Col. 2:28) is the equivalent of the claimed "housing". See 7/14/05 OA, at p. 2. This is incorrect. As explained in Tan, the three-in-one integral audio jack "**assembly**" (16) is an assembly, that is, a collection of parts (see Tan, Col. 2:38-51), and does not form a "housing" at all. The Examiner does not point out what part of Tan's three-in-one integral audio jack assembly (16) constitutes the claims' "outer surface", and erroneously associates a "downward huge cavity **20**" (id., Col. 2:33-34) in the "universal frame or bracket **12**" (id., Col. 2:25) with the three-in-one integral audio jack assembly (16). See 7/14/05 OA, at p. 2. The cavity (20) of Tan is in its bracket (20), not in the three-in-one integral audio jack assembly (16), and is not an "end adapted to hold an electrical connector plug", as claimed. The audio jack mating ports (29) of Tan are not the claimed "raised portion"; rather, they are themselves audio jack connectors. The Examiner incorrectly interprets the "universal frame or bracket **12**" (id., Col. 2:25) of Tan with the claimed "covering formed over the outer surface of the housing". See 7/14/05 OA, at p. 2. As Tan describes, the bracket (12) is a frame to hold a D-subminiature connector (14), not a covering. See Tan, Col. 2:25-31 (the connector (14) is attached to the bracket (12) by rivets (18)). Tan nowhere teaches a covering as claimed here. Thus, Tan does not have any of the elements at issue here.

C. OBVIOUSNESS REJECTIONS (35 USC §103(a))

The Examiner rejected independent claims 1 and 12 and dependent claims 3 11 and 14-16

under 35 U.S.C. §103(a) as being unpatentable over Owens in view several other references. See 7/14/05 OA, at pp. 3-9. Originally, the Examiner also rejected claims 1 and 12 on the ground that they were anticipated (under 35 USC §102(b)) by Owens. See 9/9/04 OA, at p. 3. In the 7/14/05 OA, this argument was transformed into an obviousness (35 USC §103(a)) rejection, although the reasoning is mostly unchanged. The Examiner argues that while Owens does not disclose "**a design surface ... formed as part of the background surface**" (see 7/14/05 OA, at p. 4), such limitations are unpatentable because they are "matters relating to **ornamentation only which have no mechanical function**" and, therefore, "cannot be relied upon to **patentably distinguish** the claimed invention from the prior art." See 7/14/05 OA, at pp. 10-11 (emphasis in original), *citing* In re Seid, 161 F.2d 229 (C.C.P.A. 1947). The Examiner's change from anticipation to obviousness reflects the fact that the Court in In re Seid held that a second reference must teach the use ornamentation. Although the Examiner states the unsupported opinion that "any letters, numerals, signs, etc. ... are interpreted as ornamentation" and "**have no mechanical function**" (7/14/05 OA, at pp. 10-11, emphasis in original), Applicant's Specification specifically recites the manufacturing advantages of the limitations the Examiner denounces as ornamental; namely, the invention's design surface solves the problem of a two-step molding process to apply manufacturers' logos and the like. In this respect, the Examiner's argument, that Owens teaches the use of the "plaque member **26**" (see Owens at Col. 3:55-56) as a location for applying an appliqué (see 7/14/05 OA, at p. 4), fails to appreciate the object of Applicant's invention to eliminate a two-step molding process to apply manufacturers' logos by forming the design in the design surface during manufacture.

The Examiner's rejection of the dependent claims rely on a misunderstanding of Owens, as the primary reference, and unsupported links to several inapposite patents, as discussed below. First, however, the Examiner's misapplication of Owens undermines all the obviousness rejections.

1. **Description of Owens**

Owens shows a cable connector with an inner yoke (12) and an outer yoke (14). The inner yoke has a "raised planar member" (26) that extends through a "rectangular hole" (42) in the outer yoke (14) for "mechanical security of the inner yoke 12 and associated components within the outer yoke member 14." See Owens, Col. 3:15-20 ("Raised planar member 26 engages within rectangular hole 42, and the elongated oval member 36 engages within hole 44 of the outer yoke 14 for positive mechanical positioning and securing of the inner yoke 12 within the outer yoke 14"), and Col. 3:61 through Col. 4:4 ("The raised planar surface 26 essentially extends through rectangular hole 42 of the outer yoke 14 as does the elongated oval member 36 through the elongated oval hole 44 on the underside of the outer yoke body 14 for mechanical securement of the inner yoke 12 and associated components within the outer yoke member 14"). Owens does not describe or claim the "raised planar member" as a structure for incorporating designs, logos or a gripping surface.

Owens disclosed a three-step molding process, wherein an "informational plaque" is encompassed by the outer yoke (14) during molding of the outer yoke. That is, Owens describes molding an "information plaque" into the connector. See Owens, at Abstract ("a final yoke assembly is molded encompassing the ... informational plaque"); see also Col. 1:47-48

("information plaques molded into the yoke"), Col. 1:59-60 ("a molded contact pin dot information plaque in the yoke"), Col. 3:50-58 ("[i]n forming outer yoke 14, a high grade polymer molding compound flows around and is molded to the inner yoke 12, around color coded alpha-numeric labeling inserts 28a-28n leaving the upper surface of the inserts 28a-28n exposed, around the raised planar informative plaque member 26, and around bottom elongated oval member 36 as illustrated in FIG. 3 also leaving their exterior surfaces exposed"), Col. 4:48-49 (dependent claim 4, "System of claim 1 including information plaque means molded into said outer yoke housing"), and Col. 4:60-62 (independent claim 4, "c. molding an outer yoke housing incorporating an information plaque and the inner yoke body of step (b)"). Owens' teaching reflects the problem of the prior art disclosed by the Applicant here:

> To provide a place for a manufacturer's name or for part identification, the plastic covering **11** of conventional connectors is sometimes molded with a recess **20**. In the recess **20**, identifying logos, designs, words, or numbers are often formed in the molding process, leaving raised or indented surfaces (not shown) in the plastic covering **11**. Or, a label (not shown) can be affixed in the recess **20** after molding. **Some designs have a raised surface design by placing the cable connector 10 or adapter in a second injection mold and adding a second plastic surface 15. This two-step molding process allows different colors or textures of plastic to be used.**

See Specification, "Discussion of the Prior Art", at p. 2 (emphasis added). In summary, Owens teaches and the Applicant discloses as prior art a multi-step molding process to incorporate an "informational plaque" (Owens) or "raised surface design" (Applicant's disclosure of prior art) into a final plastic connector.

2. Rejection of Independent Claims 1 and 12

a. Owens' Two-Step "Informational Plaque Member 26" is the Very Problem Applicant's Invention Seeks to Solve

The Examiner rejected independent claims 1 and 12 as obvious by arguing that, while Owens "does not teach **both** background and designed [*sic*] surfaces", it "does indicate that the surface of a raised portion 26 is intended for use in applying information" and "[e]tching and appliqués are both commonly used methods of applying info [*sic*] and would have been obvious alterations since they are both easily performed." See 7/14/05 OA, at p. 10 (emphasis in original); see also id., at p. 4. This statement of fact is incorrect and demonstrates a stubborn refusal by the Examiner to consider Applicant's discussion of the prior art, which establishes that the two-step process of applying a logo design, like the "information plaque member 26" described in Owens, adds a manufacturing step. See Specification, "Discussion of the Prior Art", at p. 2. The Applicant's invention overcomes this problem by forming the logo design in the "design surface" of the "raised portion" of the "housing" (from Applicant's claim 1) during manufacture. Id., "Summary of the Invention", at p. 3.17-24.

An obviousness rejection cannot be based on an argument that a claimed element or limitation is no different than the stated problem it solves without factual support. In this application, the Examiner has relied on an unsupported factual assertion that the two-step appliqué process of Owens is as "easily performed" (see 7/14/05 OA, at p. 10) as forming a design in a single-step process. To support an obviousness rejection, the Examiner was required to identify a single, primary reference. Durling v. Spectrum Furniture Co., 101 F.3d 100, 103 (Fed. Cir.1996). After the primary reference is identified, secondary references must be identified. Id., *citing* In re Harvey, 12 F.3d 1061, 1063 (Fed. Cir. 1993). The secondary references may only

be used when a suggestion or motivation, to combine the primary and secondary references to create the claimed design, is identified. Hupp v. Siroflex of America, Inc., 122 F.3d 1456, 1462 (Fed. Cir.1997).

Pursuant to MPEP §706.02(j), "After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action: (A) the relevant teaching of the prior art relied upon . . . , (B) the difference or differences in the claim over the applied references, (C) the proposed modification of the applied references(s) necessary to arrive at the claimed subject matter, and (D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification."

MPEP §706.02(j) further provides that "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."

MPEP §706.02(j) explains that "The initial burden is on the examiner to provide suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." (Citation omitted.)

In this application, the Examiner failed to follow the procedures and legal standards for an obviousness rejection and has, instead, created an obviousness standard that depends on an Examiner's factual assertion that forming a design surface as part of the raised portion of a connector's housing is as "easily performed" as the two-step appliqué described by Owens. See 7/14/05 OA, at p. 10. This standard is unsupported and must be overturned.

b. The Examiner's "Ornamentation" Argument Lacks Legal Support

The Examiner has attempted to build an obviousness rejection on the unsupported contention that the claimed "raised portion" structure is mere ornamentation, and, therefore, Owens anticipates it, even though the Examiner admits that Owens lacks the claimed structure. See 7/14/05 OA, at pp. 10-11. The Examiner did not include this argument in the body of the obviousness rejection of independent claims 1 and 12 (id., at pp. 3-4), but included it in the response to Applicant's arguments in the second appeal brief. Id., at pp. 10-11. These arguments were directed to the Examiner's previous anticipation rejection. See 9/9/04 OA, at p. 3. Because this argument violates the rules for anticipation, it cannot stand.

The Examiner incorrectly cites In re Seid, 161 F 2d 229 (C.C.P.A. 1947), for the proposition that claim elements or limitations relating to "ornamentation only" do not fall within the general rule that a single anticipating reference must disclose every claimed element. See 7/14/05 OA, at p. 11. In re Seid did not involve anticipation; rather, it addressed the issue of obviousness.

> It was conceded by both the board and the examiner that the claims were not met by any single reference.

> The issue presented here is whether the proposed combination of references is an **obvious** one or one involving invention.

Id., 161 F.2d at 231 (emphasis added).

Moreover, the Examiner misinterpreted the ruling in In re Seid. In that case, the claim at issue involved a soda bottle with "an artificial display figure... representing exteriorly a human head and upper body trunk", of a specifically claimed form, to fit over the bottle's neck. Id., 161 F.2d at 229-30. The claim was rejected as obvious in light of several prior art patents disclosing bottles with neck coverings and human figures. Id., 161 F.2d at 230. The Court held that the "particular shape and arrangement" of the applicant's claimed human figure, "including the arrangement of the arms", related "to ornamentation only and have no mechanical function whatsoever." Id., 161 F.2d at 231. It should be noted that all of the issued prior art patents discussed in In re Seid included claims for structures intended to provide a place for a design – ornamentation – on bottles. The applicant's difficulty in In re Seid was that the claimed bottle design was only distinguishable to the extent it recited a *specific design* of a human form. Thus, In re Seid stands for the rule that a claim reciting a specific ornamental design, such as a human figure arranged in a particular way, cannot be distinguished from prior art that discloses a generic design, such as a human figure.

In this application, the Examiner argues that, since the claims relate to a structure with background surface and a design surface, they claim "matters relating to **ornamentation only which have no mechanical function**" and are unpatentable. See 7/14/05 OA, at pp. 10-11 (emphasis in original). The Examiner has confused mechanical structure having the function of

providing a place for ornamentation with the ornamentation itself. In the present application, Applicant has made no claim to a particular ornamentation; rather, Applicant has claimed a mechanical structure, with expressly detailed industrial advantages, that can provide a "design surface" of a certain type. Thus, In re Seid does not support the Examiner's rejection. Moreover, all the prior art cited in In re Seid involved issued patents that claimed structures for locating ornamental designs, which is the case in the present application.

Finally, the mechanical advantages of the present design have been expressly recited in Applicant's Specification. See Specification, at pp. 1:23-4:4. The problem of a two-step molding process to apply manufacturers' designs is expressly described. Id., at p. 2:13-23. The problem of distinguishing a manufacturer's design through transparent plastic is also described. Id., at p. 2:253:10. The present invention provides a mechanical structure for an electrical connector that overcomes these problems. Id., at p. 3:15-4:4. The specific form of an ornamental design is not claimed. Therefore, the Examiner's reliance on In re Seid is misplaced.

2. **Claims 3 and 14**

The Examiner argues that Owens, in view of Williams, renders claims 3 and 14 (sub-surface limitation) obvious. See 7/14/05 OA, at p. 4. The Examiner admits that Owens does not disclose a design surface that is below the background surface, Williams' "tire applique" (see Williams, Abstract) teaches such a structure, and it would have been obvious to combine the references "in order to provide some identification information". See 7/14/05 OA, at p. 4. The Examiner goes on to explain that "how the design surface [is] arrange [*sic*], above or below the background surface, depend only **from the method of forming the design surface** by **adding or**

subtracting material." Id. (Emphasis in original.) Again, the Examiner fails to appreciate that the multi-step manufacturing process necessary to create the laminate structure described in Williams:

> In a preferred embodiment, the present invention comprises **a tire applique** having **a first elastomeric layer**, **a second stamping layer** secured to the first layer, and **a data material layer** stamped to the second layer. **A backing material** mounted to the first layer is removed and the applique is secured to a tire by a suitable adhesive. Other aspects of the present invention relate to the combination of the applique and a tire, and to **the process for marking a tire by applying the applique to the tire.**

See Williams, at Col. 1:61-2:2 (emphasis added). Williams discloses an appliqué with four layers and a process of applying the appliqué in a separate step. As discussed above, in reference to the Examiner's obviousness rejection of claims 1 and 12 in view of Owens, the Examiner fails to understand the problem of the prior art (*i.e.*, multi-step process), and the object of Applicant's invention in solving this problem by disclosing a structure that has a design surface formed as part of the connector housing and, therefore, capable of being manufactured in a single step.

3. Claims 4 through 10 and 15

Dependent claims 4 through 10 and 15 relate to the method by which a design, either sub-surface (claims 4-6) or above surface (claims 7-10 and 15), is formed into the design surface. The Examiner has rejected these claims by citing Owens as a primary reference and identifying various patents that teach different methods of molding (Biche), machining ((Riggs), or stamping (Beinhaur) designs into various surfaces. None of these patents teach the structure claimed by Applicant and none disclose a structure that eliminates the multi-step manufacturing processes of the prior art disclosed by Applicant.

a. Claims 4, 7, 8 and 15

The Examiner argues that Owens, in view of Biche, renders claims 4 (sub-surface design made by molding), 7 (above-surface design), 8 and 15 (above surface design made by molding) obvious. See 7/14/05 OA, at pp. 5-7. The Examiner argues that Owens is the primary reference. However, as argued above, Owens does not disclose the structure claimed by the Applicant. The molding structure of Biche involves "an identification cap **42**" on a medical instrument. See Biche, at Col. 6:26 and Abstract ("identification means is disclosed for use with lead wires in electrocardiographic monitoring instruments"). The use of a molding a plastic "identification cap", taught by Biche, does not relate to the "housing" with a "raised portion" forming a "design surface" on which a design, such as a logo, can be molded in a sub-surface or above-surface design, as claimed here. Neither Owens nor Biche contain a suggestion or motivation to modify the "informative plaque member **26**" of Owens by molding the information into a raised portion of a housing. The Examiner's argument that molding is a well-known method of manufacture fails to overcome the step of applying this method to the single electrical connector structure disclosed and claimed by Applicant. As explained above, the rejected claims are distinguishable over the prior art, because they claim structures that overcome the problems of the prior art; namely, providing a design surface in which and onto which "logos or other information can be placed on or molded into", to overcome the multi-step molding and transparent plastic covering problems. See Specification, "Summary of the Invention", at p. 3:15-4:4. The Specification also explains that the claimed structure can provide a cable connector that "can be manufactured and assembled with fewer parts and steps", and a finished product with "a superior surface for logos and

information." Id. Thus, the claimed structure and process for manufacturing that structure have expressly described advantages over the prior art.

The Examiner argued that the rejected claims involve an impermissible attempt to patent a product by process, citing In re Thorpe, 777 F.2d 695, 698, 227 USPQ 966 (Fed. Cir. 1985). See 7/14/05 OA, at p. 12. The Examiner misreads In re Thorpe. That case held that a product-by-process is not allowed when the same product was found in the prior art. Id. In this case, Applicant's claimed structure is inventive and novel, and the method by which the structure is manufactured is separately claimed. The Examiner's rejection is improper, since a "process" is expressly identified as patentable subject matters under the patent statute. See 35 U.S.C. §101 ("Whoever invents or discovers any new and useful **process**, machine, **manufacture**, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title"). Applicant's patent application discloses and claims manufacturing the design, formed in the exposed surface of the raised portion of the connector housing, during the manufacture of the housing, by molding, machining or stamping. As explained above, this manufacture eliminates the additional molding step claimed by Owens and disclosed by Applicant as prior art. As explained in Applicant's Specification, the elimination of the additional molding step simplifies connector manufacture. Because the patent statute considers this patentable subject matter, the Examiner's rejection is improper.

b. Claims 5 and 9

The Examiner argues that Owens, in view of Riggs, renders claims 5 (sub-surface design made by machining), and 9 (above-surface design made by machining), obvious. See 7/14/05 OA,

at pp. 5-7. The Examiner argues that Owens is the primary reference. However, as argued above, Owens does not disclose the structure claimed by the Applicant. Riggs describes "engraving". As with Biche, the claimed structure and process for manufacturing that structure have expressly described advantages over the prior art. Neither Owens nor Riggs teach or suggest this structure or process.

c. Claims 6 and 10

The Examiner argues that Owens, in view of Beihaur, renders claims 6 (sub-surface design made by stamping), and 10 (above-surface design made by stamping), obvious. See 7/14/05 OA, at pp. 5-7. The Examiner argues that Owens is the primary reference. However, as argued above, Owens does not disclose the structure claimed by the Applicant. As with Biche, the claimed structure and process for manufacturing that structure have expressly described advantages over the prior art. Neither Owens nor Beinhaur teach or suggest this structure or process.

d. Claims 11 and 16

The Examiner argues that Owens, in view of Wiebe, renders claims 11 and 9 (gripping surface), obvious. See 7/14/05 OA, at pp. 8-9. The Examiner argues that Owens is the primary reference. However, as argued above, Owens does not disclose the structure claimed by the Applicant. As with Biche, the claimed structure and process for manufacturing that structure have expressly described advantages over the prior art. Neither Owens nor Wiebe teach or suggest this structure or process.

The Examiner argues that Owens is the primary reference, relying on the 35 USC §102(b)

rejection of the base claims, discussed above. As explained above, Owens does not anticipate the base claims. Therefore, the rejection of these dependent claims fails.

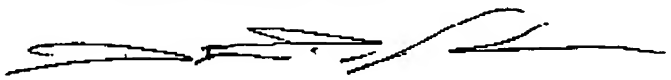
To establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. In re Werner Kotzab, 217 F.3d 1365, 1370 55 U.S.P.Q.2d (BNA) 1313 (Fed. Cir. 2000) (internal citations omitted). The Examiner cited no suggestion or motivation to combine Owens with Wiebe. Rather, the Examiner improperly cited the desirability of providing a gripping surface (see 7/14/05 OA, at pp. 8-9: "to permit one to better grip the connector") as the motivation to combine the references. This type of circular argument cannot form the basis of an obviousness rejection.

D. CONCLUSION

For the foregoing reasons, it is submitted that the Examiner's rejections are without legal support, and reversal of the Examiner's decision is respectfully requested.

Dated: December 14, 2005

Respectfully submitted,



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VIII. CLAIMS APPENDIX (37 CFR 41.37(c)(1)(viii))

The claims on appeal are as follows.

Claim 1: An electrical connector structure comprising:

a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing,

a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and

wherein the design surface is formed as part of the background surface and is not level with the background surface.

Claim 2 (canceled)

Claim 3: The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is a sub-surface design below the background surface.

Claim 4: The electrical connector structure of claim 3 wherein the sub-surface design is formed in the background surface of the raised portion of the housing during molding of the housing.

Claim 5: The electrical connector structure of claim 3 wherein the sub-surface design is formed in the background surface of the raised portion of the housing by machining.

Claim 6: The electrical connector structure of claim 3 wherein the sub-surface design is formed in the background surface of the raised portion of the housing by stamping.

Claim 7: The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is an above-surface design above the background surface.

Claim 8: The electrical connector structure of claim 7 wherein the above-surface

design is formed in the background surface of the raised portion of the housing during molding of the housing.

Claim 9: The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing by machining.

Claim 10: The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing by stamping.

Claim 11: The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is a gripping surface design.

Claim 12: An electrical adapter structure comprising:

a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing,

a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and

wherein the design surface is formed as part of the background surface and is not level with the background surface.

Claim 13: (canceled)

Claim 14: The electrical adapter structure of claim 12 wherein the design surface formed in the background surface of the exposed part of the raised portion is a sub-surface design below the background surface.

Claim 15: The electrical adapter structure of claim 12 wherein the design surface formed in the background surface of the exposed part of the raised portion is an above-surface design above the surface of the background surface.

Claim 16: The electrical adapter structure of claim 12 wherein the design formed in the background surface of the exposed part of the raised portion is a

gripping surface design.

IX. EVIDENCE APPENDIX (37 CFR 41.37(c)(1)(ix))

No evidence was submitted pursuant to 37 CFR §§ 1.130, 1.131, or 1.132, nor was evidence entered by the examiner and relied upon by Appellant in this appeal.

X. RELATED PROCEEDINGS APPENDIX (37 CFR 41.37(c)(1)(x))

There are no related proceedings.